

IN THE CLAIMS:

Claims 2, 4, and 12 have been cancelled. Claims 1, 3, 5, 6, 8, 9 – 11, 13 and 14 have been amended, as follows:

1. (currently amended) An audio data processing apparatus, comprising:

a dividing device that partitions PCM audio data into a plurality of frames, divides the PCM audio data into a plurality of divided data[[,]] and structures each of the divided data having to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data;

an encoder that encodes each of the divided data one by one at a variable bit rate and writes the encoded audio data continuously without a space between the frames;

an analyzer that decides combining points where each ameeded divided data can be recombined without overlapping with others within the overlapping sections searches frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and

a combining device that combines the divided data at the decided combining points searched frames.

Claim 2 (cancelled).

3. (currently amended) An audio data encoding method, comprising the steps

of:

(a) partitioning PCM audio data into a plurality of frames, dividing the PCM audio data into a plurality of divided data and structuring each of the divided data having to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data;

(b) encoding each of the divided data one by one at a variable bit rate and writing the encoded audio data continuously without a space beyond the frames;

(c) deciding combining points where each encoded divided data can be recombined without overlapping with others within the overlapping sections searching frames in the overlapping sections of a present divided data and the following divided data encoded in step (b), in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and

(d) combining the divided data at the decided combining points searched frames.

Claim 4 (cancelled).

5. (currently amended) [[An]] A storage medium storing a program, which a computer executes to realize an audio data encoding program process, comprising the instructions for:

(a) partitioning PCM audio data into a plurality of frames, dividing the PCM audio data into a plurality of divided data[.,] and structuring each of the divided data having to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and the following divided data;

(b) encoding each of the divided data one by one at a variable bit rate and writing the encoded audio data continuously without space between the frames;

(c) ~~deciding combining points where each encoded divided data can be recombined without overlapping with others within the overlapping sections~~ searching frames in the overlapping sections of a present divided data and the following divided data encoded by the instruction (b), in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and

(d) combining the divided data at the ~~decided combining points~~ searched frames.

6. (currently amended) An audio data processing apparatus, comprising:
a dividing device that partitions PCM audio data into a plurality of frames, divides the PCM audio data into a plurality of divided data[[,]] and structures each of the divided data [[having]] to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data;

a plurality of processors that encode each of the divided data one by one at a variable bit rate, write the encoded audio data continuously without a space beyond the frames and execute an other process;

~~a detector that detects a free processor by watching loading conditions of the plurality of the processors;~~

~~a supplier that supplies the divided data to be encoded to the free processor;~~

an analyzer that decides combining points where each encoded divided data can be recombined without overlapping with others within overlapping sections searches frames in the overlapping sections of a present divided data and the following divided data encoded by the plurality of processors, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; [[and]]

a combining device that combines the divided data at the ~~decided combining points~~ searched frames when all of the divided data have been encoded; and
a management device that watches operation statuses of the plurality of processors and when a free processor executing no process is found, controls the free processor to execute the encoding process of the divided data.

7. (original) An audio data processing apparatus according to claim 6, further comprising a controller that stops one of the plurality of processors to encode the divided data in order to make the processor execute the other process when the detector detects no free process when there is a request for the other process.

8. (currently amended) An audio data processing apparatus according to claim 7, wherein the other process is a decoding process of the encoded audio data.

9. (currently amended) An audio data processing method, comprising the steps of:

(a) partitioning PCM audio data into a plurality of frames, dividing the PCM audio data into a plurality of divided data, and structuring each of the divided data [[having]] to have main data sections for the plurality of frames and overlapping sections overlapping

with the plurality of frames in a previous divided data and a following divided data;

(b) detecting a free processor by watching loading conditions of controlling a plurality of processors that encodes the divided data and executes [[other]] a process to encode each of the divided data one by one at a variable bit rate, to write the encoded audio data continuously without a space beyond the frames and to execute an other process;

(c) supplying the divided data to be encoded to the free processor searching frames in the overlapping sections of a present divided data and the following divided data encoded by the plurality of processors, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped;

(d) deciding combining points where each encoded divided data can be recombined without overlapping with others within the overlapping sections; and

(e) combining the divided data at the decided combining points searched frames when all of the divided data have been encoded; and

(e) watching operation statuses of the plurality of processors and when a free processor executing no process is found, controlling the free processor to execute the encoding process of the divided data.

10. (currently amended) [[An]] A storage medium storing a program, which a computer executes to realize an audio data processing program, comprising the instructions for:

(a) partitioning PCM audio data into a plurality of frames, dividing the PCM audio

data into a plurality of divided data, and structuring each of the divided data [[having]] to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data;

(b) ~~detecting a free processor by watching loading conditions of controlling a~~ plurality of processors that encodes the divided data and executes [[other]] a process to encode each of the divided data one by one at a variable bit rate, to write the encoded audio data continuously without a space beyond the frames and execute an other process;

(c) ~~supplying the divided data to be encoded to the free processor searching~~ frames in the overlapping sections of a present divided data and the following divided data encoded by the plurality of processors, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped;

(d) ~~deciding combining points where each encoded divided data can be recombined without overlapping with others within the overlapping sections; and~~

(e) ~~combining the divided data at the decided combining points searched frames when all of the divided data have been encoded; and~~

(e) watching operation statuses of the plurality of processors and when a free processor executing no process is found, controlling the free processor to execute the encoding process of the divided data.

11. (currently amended) An audio data distributing apparatus, comprising:

a dividing device that partitions PCM audio data into a plurality of frames and

divides audio data into a plurality of divided data, each including the plurality of frames;

an encoding device that encodes each of the divided data at a distinct bit rate by a common coding type;

a transmitter that transmits the encoded divided data to a communication network;

a detecting device that detects a condition of [[a]] the communication network;

and

an instructor that instructs a bit rate suited for the detected conditions of the communication network to the encoder at a time of encoding each of the divided data, wherein the encoder encodes PCM audio data to MP3 data and writes the encoded audio data continuously without a space beyond the frames, the dividing device partitions PCM audio data into a plurality of frames and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data, and

the audio data distributing apparatus further includes:

an analyzer that searches frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and

a combining device that combines the divided data at the searched frames to create combined data and supplies the combined data to the transmitter.

Claim 12 (cancelled).

13. (currently amended) An audio data distributing method, comprising the steps of:

- (a) partitioning PCM audio data into a plurality of frames and dividing audio data into a plurality of divided data, each including the plurality of frames dividing audio data into a plurality of divided data;
- (b) encoding each of the divided data at a distinct bit rate by a common coding type;
- (c) transmitting the encoded divided audio data to a communication network;
- (d) detecting a condition of [[a]] the communication network; and
- (e) instructing a bit rate suited for the detected conditions of the communication network to the encoder at a time of encoding each of the divided data, wherein the step (b) encodes PCM audio data to MP3 data and writes the encoded audio data continuously without a space beyond the frames, and the step (a) partitions PCM audio data into a plurality of frames, and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data, and the audio data distributing method further includes the steps of:
- (f) searching frames in the overlapping sections of a present divided data and a following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and

(g) combining the divided data at the searched frames to create combined data and supplying the combined data to the step (c).

14. (currently amended) [[An]] A storage medium storing a program, which a computer executes to realize an audio data distributing program process, comprising the instructions for:

(a) partitioning PCM audio data into a plurality of frames and dividing audio data into a plurality of divided data, each including the plurality of frames dividing audio data into a plurality of divided data;

(b) encoding each of the divided data at a distinct bit rate by a common coding type;

(c) transmitting the encoded divided audio data to a communication network;

(d) detecting a condition of [[a]] the communication network; and

(e) instructing a bit rate suited for the detected conditions of the communication network to the encoder at a time of encoding each dividing data, wherein the step (b) encodes PCM audio data to MP3 data and writes the encoded audio data continuously without a space beyond the frames, and the step (a) partitions PCM audio data into a plurality of frames, and structures each of the divided data to have main data sections for the plurality of frames and overlapping sections overlapping with the plurality of frames in a previous divided data and a following divided data, and

the audio data distributing method further includes the steps of:

(f) searching frames in the overlapping sections of a present divided data and the following divided data encoded by the encoder, in which a beginning point of the encoded audio data written into the frame in the present divided data and a beginning

point of the same encoded audio data written into the frame in the following divided data are closest in positions but not overlapped; and

(g) combining the divided data at the searched frames to generate combined data and supplying the combined data to the step (c).